Fall 12-7-2018

Drug Diversion Reporting and Response: A Policy Analysis

Lauren Roberts

DRUG DIVERSION REPORTING AND RESPONSE: A POLICY ANALYSIS

by

Lauren Lansing Roberts

A Doctoral Project
Submitted to the Graduate School,
the College of Nursing and Health Professions
and the School of Leadership and Advanced Nursing Practice
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Nursing Practice

Approved by:

Dr. Marjorie Geisz-Everson, Committee Chair
Dr. Michong Rayborn, Committee Member

Dr. Marjorie Geisz-Everson Committee Chair	Dr. Lachel Story Director of School	Dr. Karen S. Coats Dean of the Graduate School

December 2018

Published by the Graduate School

THE UNIVERSITY OF SOUTHERN MISSISSIPPI®

ABSTRACT

Despite the significant improvements made to address addiction and drug diversion by healthcare personnel, the issue continues to be problematic for most healthcare facilities. Current literature suggests that healthcare institutions incorporate early drug diversion and addiction education, implementation of effective policies and procedures, and continuous drug screening will strongly aid in decreasing the prevalence of drug diversion by healthcare providers.

Among all the different types of healthcare providers, anesthesia providers continue to be at a disproportionately higher risk for addiction and drug diversion when compared to other providers (AANA, 2016). The stress of a demanding profession, personality, and easy access to addictive medications all play a part in this statistic, thus, are responsible for the increased risk of addiction and drug diverting by anesthesia providers (Wright et al., 2012). The disease of addiction and the act of drug diversion is a multifaceted problem that affects the healthcare provider, coworkers, hospitals, patients, and families. Therefore, it is imperative that healthcare institutions have policies and procedures in place that comply with current best practice guidelines regarding employee drug diversion. The purpose of this DNP project was to perform a policy analysis on the institution of interest drug diversion reporting and response policy. A SWOT analysis was performed and after a thorough review of the evidence, a set of best practice guidelines regarding a drug diversion policy were used to compare the participating facility's current policy for reporting drug diversion in an employee. An executive summary of policy analysis findings and suggested revisions to the institution's current policy was presented to the key participants.

ACKNOWLEDGMENTS

I would like to express my deep gratitude to my committee chair, Dr. Marjorie Geisz-Everson, for her continuous guidance, patience, and support throughout the process of this doctoral project. I would also like to thank Dr. Michong Rayborn. This project would not have been possible without their commitment and dedication.

DEDICATION

First, and foremost, I would like to dedicate this entire journey to God. Through him, all of this was made possible. Through him, my husband, family, and friends showed an enormous amount of love, grace, and an unending amount of support these last three years. It is with extreme humbleness that I thank each and every one of you for the love and support you have shown me.

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LIST OF ABBREVIATIONS

AACN	American Association of Critical-Care Nurses
AANA	American Association of Nurse Anesthetists
ANA	American Nurses Association
COA	Council of Accreditation
CRNA	Certified Registered Nurse Anesthetist
DNP	Doctor of Nursing Practice
IRB	Institutional Review Board
NAP	Nurse Anesthesia Program
SRNA	Student Registered Nurse Anesthetist
SUD	Substance Use Disorder
SWOT	Strengths, Weaknesses, Opportunities, Threats
USM	The University of Southern Mississippi

CHAPTER I - INTRODUCTION

Substance abuse is a topic of concern in the practice of Certified Registered Nurse Anesthetist (CRNA). According to the American Association of Nurse Anesthetist (AANA, 2015), 1 out of every 10 CRNAs is misusing drugs within the workplace. Substance abuse, thus addiction, is an illness that is difficult to understand and is a disease that spans our entire economic and social spectrum (AANA, 2015). A term associated with substance abuse is drug diversion. For the purpose of this project, "drug diversion" is used in reference to the act of a healthcare provider redirecting drugs for personal use both on and off duty (AANA 2016). Drug diversion is a considerable problem in healthcare facilities around the world (Bell, McDonough, Ellison, & Fitzhugh, 1999). Substance abuse and drug diversion in the workplace is an issue that must never be ignored because of its importance to both patient and provider safety. An impaired provider, specifically the CRNA profession, who is diverting drugs cannot deliver safe anesthesia or respond to an emergency appropriately, thus placing the patient in harm's way (AANA, 2015). Review of evidence reveals that within healthcare institutions, early education, vigorous programs, effective processes, and the continuous use of screening can aid in decreasing the prevalence of substance abuse and drug diversion among healthcare professionals (AANA, 2015).

Background and Significance

Anesthesia providers are at a disproportionately higher risk for substance abuse when compared to other healthcare professionals (Wright et al., 2012). A variety of reasons, including the stress of a demanding profession, personality traits among CRNAs and access to highly addictive medications, are responsible for the increased statistics

among anesthesia providers Wright et al., 2012). It is estimated that 10-20% of nurse anesthetists will experience some form of drug misuse during their career (Bell et al., 1999). Chemical dependency in an anesthesia provider occurs most frequently in the first five years of practice, according to the fact sheet provided by AANA (2015). If that statistic was not alarming enough, Tetzlaff (2011), stated the leading cause of death among young anesthesia providers is substance abuse. Despite the alarming statistics, many would argue the statistics are "off" or "not accurate" due to the difficulty it is to obtain the accurate frequency of substance abuse and drug diversion, not only among anesthesia providers but in healthcare providers as a whole (Wright et al., 2012). Legal issues, risk of losing licensure, policy, and processes in place by institutions and patient safety, all play a role in obtaining accurate data pertaining to confirmed substance abuse and/or drug diversion by healthcare personnel, thus, making this problem more likely larger than we know (Wright et al., 2012).

The AANA acknowledges the risk anesthesia providers face and in 1984, the AANA adopted the AANA Position Statement 1.7 Chemical Dependency. The position statement has since been revised to the AANA Position Statement 1.7 Substance Misuse and Chemical Dependency. Over the years, the AANA has continued to recognize the disease of addiction and what it means for the anesthesia community. AANA has developed multiple wellness programs and Peer Assistance Advisors (PAA) groups in every state that provide 24-hour phone hotline service for those in need. The American Nurses Association (Strobbe & Crowley, 2017) has also taken a stance against nursing impairment and defines it as a "nurse who is unable to meet the requirements of the Professional code of ethics established by the ANA as a result of cognitive, interpersonal

or psychomotor dysfunction from excessive use of alcohol or drugs" (p. 105). Seventy percent of all disciplinary cases addressed by the state board of nursing are related to the chemically impaired nurse (National Council of State Boards of Nursing [NCSBN]), 2011).

Substance abuse and the disease of addiction not only affects the healthcare provider but, also, the patients who have entrusted the provider to keep them safe (Kunyk, 2015). Abuse among healthcare providers is often not recognized until death or a near-death overdose has occurred (ANA, 2015). Because of this fact, it is crucial that every institution have policy and prevention programs in place to prevent, detect, report and respond to drug diversion (AANA, 2016). The American Nurse Association (ANA, 2015) educates that in addition to nurses and advanced practice nurses, ancillary staff may also have access to medications, thus, providing an opportunity for the diversion of drugs. Warner et al. (2015) reported on a surgical technician who diverted opioids by replacing fentanyl syringes with syringes filled with saline that were now contaminated. In this report by Warner et al. (2015), an unknown number of patients were exposed to hepatitis C, but 18 patients were confirmed to be infected with the virus.

Best practice guidelines regarding drug diversion policy emphasize the importance of facilities to have clear and specific policies in place for drug diversion in the workplace. Processes and procedures that include early education, drug diversion programs, clear guidelines for reporting diversion, effective management of confirmed diversion and the transition to treatment are all key steps in the prevention of adverse outcomes related to drug diversion (AANA, 2016). Policies that advocate for fair and uniform management help create the safe environment for "prompt reporting, appropriate

treatment, and the potential for reentry of the professional into clinical practice" (Lien, 2012, p. 607). Therefore, it is important to determine the most effective ways to decrease the risk of substance abuse and drug diversion among all healthcare providers, including students who are utilizing hospitals for clinical gain. Chronic stress places the anesthesia students at an increased risk for illness, injury to self and substance abuse (Bozimowski, Groh, Rouen, & Dosch, 2014). The AANA (2015) believes the lack of SRNA education related to effective coping skills and recognizing the signs and symptoms of risky behaviors can contribute to this problem. There are multiple risk factors that contribute to the risk of substance abuse as a provider, but stress is a precursor in anesthesia programs and in the early years of practicing (Bozimowski et al., 2014). Healthcare facilities, administration, and nursing programs have a responsibility to ensure that the processes, policy, and security systems are in place to prevent drug diversion and to protect patients if impairment is suspected (ANA, 2015).

Problem Statement

Anesthesia providers are often in contact with controlled substances. The progression of substance abuse is rapid and coupled with a very high morbidity and mortality rate (Tetzlaff, 2011). Substance abuse and drug diversion is a multifaceted problem that affects providers, co-workers, employers, patients and families (Berge, Dillon, Sikkink, Taylor, & Lanier, 2012). The AANA (2016) estimates diversion and addiction of anesthesia providers at greater than 15%. The ANA (2015) estimates that 6-8% of nurses use alcohol or drugs to the extent that it impairs professional performance. The impaired provider poses a significant threat not only to patient safety but also become a liability to the health care institutions and departments where the diversion

occurred. (ANA, 2015). The clinical question for this DNP project asks, Does the drug diversion policy at a Level II hospital in southeast Mississippi follow best practice guidelines regarding healthcare employees?

Purpose of Project

The purpose of this DNP project was to perform a policy analysis on the drug diversion reporting and response policy at a local hospital. Clear policies and procedures should be set in place for dealing with such investigations and managing the many possible outcomes of a confirmed diversion. The policy was compared to current best practice guidelines for drug diversion policies and prevention within healthcare facilities. The student developed a new language for the policy related to suspected or confirmed drug diversion in student registered nurse anesthetists. Educational modules were also developed for the local facility and anesthesia program to utilize as part of their efforts to decrease the incidence of drug diversion amongst present and future anesthesia providers.

Needs Assessment

A needs assessment was performed and a gap in the current drug diversion policy, when compared to the best practice guidelines at a local hospital, was found. The drug diversion policy at the local facility in south Mississippi lacked the appropriate language needed in their policy related to the impaired anesthesia student. In the policy, there is a gap in terms of what supervisors and managers do for their employees which are not appropriate for the student and academic partners dealing with a drug diversion incident. The facility of interest was asked to provide a policy, based on best practice guidelines, specifically related to drug diversion in student registered nurse anesthetists. Also, a complete analysis was performed on the drug diversion reporting and response policy and

compared to best practice guidelines. Thus, the policy problem question addressed the enhancements needed in the policy so that it meets all best practice guidelines suggested for an effective drug diversion policy. Evaluation of the gaps between the current evidence and the current policy at the local hospital was also performed. Collaboration between all parties involved, but specifically, the hospital and the university, are necessary for effective action to be taken when drug diversion is confirmed in a student.

Theoretical Framework

The model that aided in the policy analysis is Bardach's model. Bardach's model recommends summarizing the policy issues, evaluating the supporting and opposing arguments, analysis of stakeholders and anticipated impact on sentinel outcomes. There are eight steps included in Bardach's model. The eight steps include: define the problem, assemble the evidence, construct the evidence, select the criteria, project the outcomes confront the tradeoffs, decide and finally, and tell your story. Steps one through four focus on framing the analysis, while steps five through eight emphasize actually doing the analysis and disseminating findings. The impact on outcomes, according to Bardach's model, includes evaluating population health benefits, costs, and equity and administrative feasibility. The “tell your story” stage of Bardach's model, culminates with the presentation of findings to key internal stakeholders at the local hospital that includes the policy analysis and evaluation with recommendations for policy changes within the hospital, an algorithmic plan for reporting drug diversion in SRNAs and educational modules.

DNP Essentials

There are eight essential elements of the Doctor of Nursing Practice (DNP) degree (AACN, 2006). Each of those eight essentials were met in the development of this project and are listed as follows:

Essential I: Scientific Underpinnings for Practice

Essential one was met by completing an evidence review of the topic, exploring the scientific knowledge previously discovered. The evidence discovered will aid in developing best practice guidelines for a drug diversion policy.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Essential II focuses on quality improvement and systems thinking, which was met by performing a policy analysis, along with the development of educational modules.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

Essential III was met through an integrated review of evidence and analysis of the best practice guidelines for drug diversion policy in healthcare institutions.

Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

Information systems and technology was utilized by formatting a policy algorithm used as part of improving the drug diversion reporting and response policy at the facility of interest.

Essential V: Health Care Policy for Advocacy in Health Care

Essential V was met by analyzing the current drug diversion policy at the hospital of interest as means to update policy to meet demands by best practice guidelines.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Continuous collaboration with hospital research committee, anesthesia and pharmacy departments necessary for the success of this DNP project targeted outcome, Essential VI was met.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

Essential VII was met through a policy analysis performed and the development of education modules on addiction and drug diversion. The modules will be used as a way to bring drug diversion awareness to all hospital employees and students.

Essential VII: Advanced Nursing Practice

The analysis of evidence, synthesis of data, presentation of findings and the assessment of the impact of the information presented to key stakeholders are all expected of the advanced practice nurse, therefore this essential was met.

Review of the Evidence

An evidence search was performed to explore the best practice guidelines for drug diversion policies and procedures in healthcare facilities. A secondary search was done to explore the disease of addiction, signs, and symptoms of drug diversion, available resources, and best practice prevention guidelines. Several databases including CINAHL with Full Text, Medline, PubMed, Cochrane, and Google Scholar were searched for relevant articles. The following search terms were utilized: addiction, drug diversion, anesthesia, substance abuse, impaired provider. An initial search with limitations to full text only and publication dates between 2000 and 2016 returned 114 articles after

duplications were removed. Upon further review of all databases accessed, 10 articles were selected because they were strongly applicable to this project. An evidence matrix is included with information from each of the included articles (See Appendix B).

Addiction is a Disease

Our nation is in the midst of an unprecedented opioid epidemic (U. S. Department of Health & Human Services, 2016). On an average day in the United States, 3,900 people initiate a nonmedical use of opioids (MSDH.ms.gov). In the state of Mississippi alone, 3.3 million opioid prescriptions were dispensed in 2016 (MSDH.ms.gov). On average, for every Mississippi resident, there were 2.4 allocated for controlled substances and 1.1 prescriptions for opioid analgesics during 2016 (MSDH.ms.gov).

Substance-use disorder (SUD) is the diagnostic term in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders referring to the recurrent use of alcohol or other drugs that causes clinically and functionally significant impairment (Substance Abuse and Mental Health Services Administration (SAMHSA, 2017). The impairment is so significant, individuals are unable to meet the responsibilities at work, school or home that they once were able to do. Substance use disorders are neurobiological disorders, they are not a choice to abuse or become dependent on a substance (SAMHSA, 2017). Once someone is addicted, there is a complete loss of self-control and compulsive drug taking behaviors, despite the intense desire to stop taking the drugs (SAMHSA, 2017). Scientific evidence shows that disruptions in three areas of the brain are particularly important in the onset, development, and maintenance of substance use disorders: the basal ganglia, the extended amygdala, and the prefrontal cortex (SAMHSA, 2017). These disruptions enable substance-associated cues to trigger

substance seeking, reduce sensitivity of brain systems involved in the experience of pleasure or reward, and heighten activation of brain stress systems and reduce functioning of brain executive control systems, which are involved in the ability to make decisions and regulate one's actions, emotions, and impulses (Health Care Systems and Substance Use Disorders, 2018).

Impaired Healthcare Professional

Multiple studies confirm the presence of substance abuse among anesthesia providers. The term anesthesia provider includes: certified registered nurse anesthetist, student registered nurse anesthetist, anesthesiologists, and anesthesiology residents. Saunders (2006) revealed a lack of awareness of the actual systematic plan in place to handle the problems of alcohol and drugs within hospitals. In more cases than not, providers are not tested for drugs until they are reported by a co-worker for displaying obvious signs and symptoms of impairment (Saunders, 2006). Shared risk factors for anesthesia providers, in general, include easy access to narcotics, the stress of profession, schedule irregularities, sleep deprivation, and requirement of absolute vigilance overextended surgical procedures (Luck & Hedrick, 2004). A correlational study by Bell et al. (1999) found that male CRNAs with 6-10 years of experience were at the highest risk for substance abuse. High academic performance is also a risk factor as evidenced by the top 10% of SRNAs showed higher addiction rate (Tetzlaff, 2011). According to Tetzlaff (2011), the anesthesia work environment (e.g., the operating room) is ideal for drug diversion and dependency. Bell et al. (1999) and Luck and Hedrick (2004) found that versed and nitrous oxide are the two most commonly abused drugs among anesthesia providers. On the contrary, Berge, Dillon, Sikkink, Taylor, and Lanier (2012) reported

that opioids are the most diverted drugs. Specifically, to opioids, Tetzlaff (2011) stated fentanyl was the most abused opioid among anesthesia providers. According to AANA (2016), the prevalence of anesthesia providers diverting drugs for self-administration is 9.8%.

The AANA (2015) highlights that knowledge of signs and behaviors of an impaired provider is vital; however, the AANA also recognizes that identifying impairment in a colleague is difficult. Difficulty in identifying impairment may be due to the fact that these changes in behavior may not be abrupt. According to the AANA, as cited in Luck and Hendrick (2004), these behavior changes may occur little by little, over the course of months or years, making them complicated to identify. To make the situation more difficult, impaired providers conceal their addiction in many different ways. Addicts may alter their charting to show certain drugs were given, when in fact, another drug was given, or sometimes, to the detriment of the patient, none were given at all; some addicts may replace their drug of choice with another liquid, as if the drug had never been tampered with at all (Bryson & Silverstein, 2008). Anita Bertrand, a Certified Registered Nurse Anesthetist practicing in Houston, stated, "I was absolutely impaired, using narcotics while working...And no one ever noticed;" she even placed an intravenous port in her ankle for easier access to administer her drug of choice (Eisler, 2014., p. 1). Bertrand stated, "There are so many practitioners working impaired and we have no idea...we're doing a terrible job addressing this problem" (Eisler, 2014., p. 2).

Anesthesia providers have an in-depth knowledge of medications that give them an advantage when choosing their drug of choice for abuse (Wright et al., 2012). Most of the drugs chosen are difficult to detect due to short half-lives, making blood and urine

tests unreliable. There are multiple reasons why anesthesia providers divert drugs. According to Tetzlaff (2011), the authors agree that previous drug experimentation is associated with future substance abuse and has been confirmed by interviews of recovering anesthesia providers. A majority of addicted anesthesia providers have a novelty-seeking behavior and a history of personality disorders that lead to self-medication and drug diversion (Tetzlaff, 2011).

As mentioned above, ineffective coping related to the stress of anesthesia school can lead the student down a path of poor decision making and self-treatment. A study by Perez and Carrol-Perez (1999) examined anesthesia students' perception of stress. Of the 1,504 student responses, 73% reported their stress was categorized as a major life crisis (Perez & Carrol-Perez, 1999). The statistics of substance abuse and drug diversion among anesthesia professionals needs to be disclosed to the students in anesthesia programs (Wright et al., 2012). Anesthesia students should be aware of the resources available through the school or through professional organizations, so they may utilize them if needed (Bozimowski et al., 2014). Students should be knowledgeable in drug diverting signs and behaviors, so easy detection can be made (Bozimowski et al., 2014). The guidelines SRNAs follow when drug diversion is suspected should be easily accessible in the event the steps need to be followed (Bozimowski et al., 2014).

Prevention in the Workplace

Another common theme in the review of literature is the need for supplemental education and policy development regarding substance abuse and drug diversion in anesthesia providers. The AANA (2016) recommends the use of a thorough drug diversion program and an unbiased substance abuse policy by healthcare institutions.

Within the drug diversion program, education to identify signs and behaviors of drug diversion and steps to take if one suspects abuse should be of paramount importance. However, the policy guidelines should be made clear to all employed staff and students utilizing the facility for training purposes (AANA, 2016). There have been several studies that have attempted to identify interventions to prevent or deter substance abuse in anesthesia providers. Berge et al. (2012) examined drug diversion in multiple facilities and the study included patterns, detection, and prevention of drug diversion. Interventions included random drug sample processing of returned controlled substances, automated drug distribution and return system and a more aggressive position of prevention coordinators and committees. The authors did report an overall decline in drug diversion, however, the data was limited, and no clear findings were indicated. According to AANA (2016), a policy that builds awareness of individual risk factors identifies signs and symptoms of substance abuse and utilizes drug diversion prevention strategies, may discourage diversion and substance use while keeping patients and providers safe.

By its nature, drug diversion is a clandestine activity, and methods in place in many institutions leave cases undiscovered and unreported (Bell et al., 1999). The review of the evidence suggests there needs to be ongoing efforts to prevent the diversion of controlled substances from the workplace and to rapidly identify and respond when such diversion is detected (Berge et al., 2012, p. 65). Healthcare facilities must have systems in place to promptly identify drug diversion and intervene when it is occurring (Berge et al., 2012). All healthcare workers must be vigilant for signs of diversion. It is an accreditation requirement by the Council on Accreditation of Nurse Anesthesia

Educational Programs (COA) that all graduate and doctoral level nurse anesthesia programs include the subject of substance abuse in their curriculum. The COA does not lay out specific guidelines or tools for schools to follow to make sure consistent education about substance abuse is being followed. However, the current literature does put emphasis on the continuation of education on substance abuse after entry to professional anesthesia practice. The AANA peer mentoring committee has provided support for anesthesia providers struggling with addiction. Modules and current statistics are available on the AANA website to all anesthesia providers, programs and departments to utilize within their specialties as a means to provide education, show support and prevent issues related to substance abuse. The resources provided on the AANA website addressing substance abuse and drug diversion are made available, so policy can be developed or improved.

Best Practice Guidelines

The AANA (2017) recommends facilities address the important element of patient and provider safety through a comprehensive program and non-discriminatory policy addressing substance use disorder. Substance use disorder should not be ignored. It can result in harm to the impaired individual, their colleagues or patients. Regardless of the substance abused, impairment on the job can adversely impact patient and provider safety (Berge et al., 2012). Facility policy and education that address symptom awareness, prevention, reporting, safe intervention, and reentry to the workplace, may minimize the risk of substance diversion and minimize adverse outcomes (Berge et al., 2012). Policies that advocate for fair and uniform management of providers with suspected or diagnosed substance use disorder supports a safe environment for prompt reporting, appropriate

treatment, and the possible reentry of the anesthesia professional into clinical practice (Berge et al., 2012). According to the AANA, a policy that includes specific elements are complying with best practice guidelines. These guidelines will aid in discouraging drug diversion and substance abuse in the workplace, while also promoting the well-being of employees and patients. The elements are as listed below:

- Promotes healthy behaviors to support professional responsibility to be fit for duty.
- Builds awareness of individual risk factors.
- Identifies behaviors and symptoms of substance use disorder and drug diversion.
- Acknowledges the harmful consequences of substance use disorder, drug diversion, and impairment in the workplace.
- Utilizes drug diversion prevention strategies.
- Optimizes drug testing modalities (e.g., pre-employment, random, for-cause) to include testing for anesthesia drugs.
- Outlines safe reporting processes of impaired individuals through the appropriate chain of command.
- Facilitates a safe intervention for appropriate treatment evaluation.
- Addresses specific treatment considerations for anesthesia professionals.
- Clarifies reporting obligations to authorities and/or licensing boards.
- Maintains a safe, stigma-free workplace environment (AANA, 2016).

Summary

Our nation is currently facing an opioid epidemic. It is the duty, not only to our profession but to our patients to protect them from harm and provide the best quality care. Impaired healthcare personnel places themselves, the patient, and the profession at risk. Best practice guidelines suggest hospitals need to have clear policies set in place that provide all healthcare employees with the steps to be taken when reporting drug diversion. This DNP project was able to perform a policy analysis of a current drug diversion policy at a hospital in southeast Mississippi. The policy analysis followed Bardach's model to policy analysis. After a thorough review of the literature, best practice guidelines aided the student in analyzing the drug diversion policy. All eight essential elements of the DNP degree were met in the development of this project.

CHAPTER II - METHODOLOGY

Target Outcome

The outcome of this doctoral project was to perform a policy analysis of the drug diversion policy at a healthcare facility located in southeast Mississippi. An executive summary of suggested revisions to the current drug diversion policy was presented to key stakeholders who could incorporate the suggested findings into the policy in the future. Evidence gathered was not limited to anesthesia providers and SRNAs. Review of evidence related to substance abuse in all healthcare professionals was also examined. After a thorough review of the evidence, a set of best practice guidelines for the facility's' drug diversion policy was established. As part of ongoing education, modules were developed on drug diversion, signs and symptoms and the available resources if one suspects abuse. It is a long-term goal of this project that the modules be required of not only current CRNAs, but also the anesthesia students who utilize the hospital in southeast Mississippi for clinical experience.

Sample

During the review of best practices, there were multiple populations studied. The sample of this doctoral project was CRNAs and SRNAs who were either employed or working in a hospital in southeast Mississippi. Other populations studied included registered nurses, pharmacists, and medical residents.

Design

A policy analysis was performed on a drug diversion reporting and response policy to detect the need for improvement of the process the facility utilizes. It was the goal of this project to inform the local hospital of best practice guidelines and gaps in

current policy related to drug diversion. The outcomes management director at the healthcare facility of interest was notified of the project and sent the current policy to the DNP student. A SWOT analysis (Appendix D) was performed to weigh the benefits and liabilities associated with the drug diversion policy. The SWOT analysis identified the hospital's drug diversion policy's strengths, weaknesses, opportunities, and threats to revising or replacing the current policy. Evaluation of the gaps between the current suggested best practice guidelines and the current policy at the local hospital was also examined. Many types of data resources were explored including, suggested guidelines for effective substance abuse policy, professional organizations, peer assistance resources and other facilities with effective drug diversion and substance abuse policies in place. The data resources also included state legislature, laws, and regulations on reporting substance abuse among the anesthesia provider. The analysis of qualitative material was an active and interactive process initiated with an exploration for wider classifications or themes within the evidence. This qualitative approach was employed to thoughtfully evaluate the drug diversion policy and compile suggested changes to be made to the policy for the hospital of interest.

An executive summary of the findings, based on best practice guidelines and input from the multidisciplinary team involved, was developed. After findings were disseminated to key stakeholders, the student presented the key objectives of the project to the anesthesia department along with an educational session on substance abuse and drug diversion behaviors. The educational modules were developed with the goal of introducing the disease of addiction and the impact it has on the anesthesia profession. The modules aim to provide an effective and common grounding in drug diversion

behaviors, how to report suspected drug diversion and the resources available to providers in need. The design of the modules used an outcome-based approach. This approach is defined as what can the "students," and in this case anesthesia personnel and anesthesia students, "do at the end of the modules." The DNP student developed a draft of the modules using PowerPoint Presentations. The modules were also shown to key administrative and anesthesia-related participants. As part of ongoing education, it is a long-term goal of this project that the modules be a requirement for anesthesia students entering clinical for the first time. The presentation to administration and the anesthesia department included an opportunity for feedback and comments

Barriers and Limitations

While planning this doctoral project, it was important to identify positive and negative factors in implementing the overall project. Utilizing the SWOT analysis in the early stages of planning, the student was able to identify the potential barriers and facilitators to the clinical process change. The analysis revealed more strengths and opportunities than threats or weaknesses to implementation. One strength includes the shared interest between the DNP student, hospital administration, and anesthesia department to improve processes and drug diversion policy guidelines. However, barriers such as coworkers actually following policy and proper reporting process when an anesthesia provider is suspected of drug diversion will need to be addressed. According to Berge et al. (2012), most providers are not exactly sure how to address an impaired provider or student and do not want to be part of the reason he/she loses their job or license. Even though the best practice suggests the use of standardized policies and procedures when dealing with these types of investigations, compliance from the

employees within a department is key to carrying out these best practice guidelines (Berge et al., 2012).

Ethical Considerations

The University of Southern Mississippi Institutional Review Board (IRB) granted approval before the start of this project. IRB approval from the institution of interest was not required due to the fact no human subjects are being studied. Participants, such as the institution administration and research committee, were involved solely on a voluntary basis. The DNP project was carried out following sound ethical principles. After the policy analysis findings were disseminated to the participants, time for feedback was encouraged as part of the evaluation of this DNP project. Feedback received from participants was documented by the student. Participants were reassured all feedback and suggestions for the future of the policy is kept confidential.

Summary

The outcome of this DNP project was to perform a policy analysis of a facility's drug diversion reporting and response policy. Suggested policy revisions were presented to the key stakeholders and time was allotted for comments and feedback. A long-term goal of this project included the use of the educational modules by the facility in the future. This goal was met, and the facility of interest will be utilizing the modules in their institution as they seem fit. The project faced limitations and anticipated potential barriers without any lengthy setback. Sound ethical principles were carried out and followed throughout the entire process of this DNP project.

CHAPTER III – RESULTS

Discussion of Results

Seven of the 12 key stakeholders were present for the dissemination of the project findings. Suggested areas to the current policy in need of change included financial responsibilities, reporting to legal agencies and language specific to students using the facility for clinical experience. After suggested changes to existing policy were discussed with the key stakeholders at the institution of interest, time was allotted for stakeholders to give their feedback, comments or concerns. Overall, the seven key stakeholders were very receptive to the suggested policy changes presented. There was a unanimous agreement regarding the policy needing specific language related to steps taken when a SRNA is suspected and/or confirmed of drug diversion. It was discussed that the facility would like to keep the language "simple", if you will, in the sense it should not be specific to each school program. The stakeholders had concerns when addressing each school, each department and each type of program that uses their facilities for clinical. It was decided that there definitely needs to be new language added to the existing policy regarding clinical students (SRNAs, residents, physical therapy students), but the language needs to be written cohesively with the universities already existing drug diversion policies.

The educational modules were presented to stakeholders via PowerPoint® presentation and a copy were given to each one as well. Feedback from stakeholders regarding the educational modules were positive. All participants voiced the need to utilized modules throughout all departments at the facility. Permission was asked to

utilize modules and statistics within. The student agreed to allow the facility of interest to use the educational modules as they see fit for the future.

Summary

Seven of the 12 key stakeholders were present for the dissemination of policy analysis findings. All stakeholders agreed that the current policy needs some revisions. The facility of interest requested permission to use the projects research and education modules as they see fit for their employees. Permission was granted by the student.

CHAPTER IV – CONCLUSION

Implications for Future Practice

Policy analysis is an area of inexperience to most and the lack of research proves this. The policy is the foundation of evidence-based practice. The policy is very deliberate and guides decisions to achieve rational outcomes. Through policy, hospitals around the world are able to provide patients with the best care possible. Better patient outcomes drive policy decisions. As stated throughout this paper, drug diversion reporting and response is an area of unfamiliarity. Future research needs to be aimed at creating guidelines on how institutions should perform a policy analysis and how to implement the findings from the analysis into practice. Research in the future should explore the effectiveness of continual drug diversion and wellness education programs already implemented at healthcare facilities.

Interpretation of Results

The purpose of this DNP project was to perform a policy analysis on a drug diversion reporting and response policy. The review of literature and the best practice guidelines aided in the analysis of the facilities drug diversion policy. Although, only 7 of the 12 key stakeholders were present at the dissemination of the policy analysis, the overall impact the projects findings had were positive. Evaluation of the project was based off the feedback given by the key stakeholders. All parties involved agreed changes needed to be made to existing policy in order to meet the best practice guidelines for an effective drug diversion policy. Permission granted by stakeholders to use the educational modules and all evidence-based research gathered to educate their staff on drug diversion in the future.

Limitations

The project had several limitations which put into question the generalizability of the policy analysis findings. The stakeholders present were members of research and quality improvement departments. Therefore, the results of the policy analysis were not presented to other pertinent departments, such as pharmacy and anesthesia. The procedures and policies used for the operating room are different, if you will, when compared to other areas of the hospital. This difference is due to the types of drugs being used on a daily basis by anesthesia providers. Effort was made to account for this limitation by emailing the chief anesthesiologist results of the drug diversion policy analysis and the suggested revision. Also, personal bias of the DNP student and involvement as a student registered nurse anesthetist was a factor that could limit the internal validity of the project. Acknowledging this personal bias ahead of time, the student was able to not only focus on anesthesia providers and drug diversion but to allow all types of healthcare providers be addressed.

Conclusion

Countless patients are put at risk of receiving substandard care by impaired healthcare personnel. This poses very real implications for patient safety and should not go unnoticed. Limiting the misuse and drug diversion of prescription drugs requires a coordinated approach between regulatory bodies, hospital administrations, pharmacy and individual health care providers. The purpose of this DNP project was to perform a policy analysis on the drug diversion reporting and response policy at the institution of interest. The policy analysis revealed a gap in the institution's language specifically to students utilizing the facility of interest for a clinical site. The subtle discrepancies found

between the institution’s drug diversion policy and the best practice guidelines for such a policy were disseminated to the key stakeholders. There was a unanimous decision by the participants that felt their institution's policy exhibited the need for revision and that this revision would be beneficial for the institution, therefore ensuring the safety of their patients.

APPENDIX A – Literature Matrix

AUTHOR/YEAR/TITLE	DESIGN	SAMPLE/DATA	FINDINGS	RECOMMENDATIONS
Bell, McDonough, Ellison, & Fitzhugh, (1999). Controlled drug misuse by certified registered nurse anesthetists	A correlational study using self-administered surveys to collect data	2,500 subjects were randomly selected from actively practicing members of AANA. Of these, 1,709 completed the survey with a response rate of 68.4%	9.8% prevalence of controlled drug misuse among CRNAS Male CRNA 6-10 years of experience have increased risk for drug misuse	Addiction education should be mandatory in anesthesia schools; most CRNAs feel their colleagues who successfully complete rehab should be permitted to re-enter the profession; however, after a relapse, most believe re-entry should be denied
Berge, Dillon, Sikkink, Taylor & Lanier. (2012) Diversion of drugs within healthcare facilities, a multiple victim crime: Patterns of diversion, scope, consequences, detection, and prevention	Institution-wide Mayo Clinic Quality Improvement Effort	Entire Mayo Healthcare system. Began in the anesthesia department in the OR and expanded throughout other departments with high use of controlled substances.	Approximately 75% of suspected drug diversion has been resolved through confession of the drug diverter	
Bozimowski, Groh, Rouen & Dosch, (2012). The prevalence and patterns of substance abuse among nurse anesthesia students	Cross-sectional, retrospective study using electronic survey	Program directors of 111 accredited nurse anesthesia programs in the United States received the electronic survey. Of these, 23 PDs (21.7 % response rate) have complete data on prevalence and demographics and additional 24 PDs (42.3% response rate) completed questions related to screening procedure and prevention strategies	Prevalence of substance abuse was lower among SRNAs (0.65%) than CRNAs (9.8%), but the comparison is based on historical data. Opiate is the top drug of choice for SRNAs. Voluntary enrollment to treatment and dismissal from the program were the top reported outcomes of substance abuse. Drug testing for cause during the program was the top reported screening procedure Wellness activities, educational offerings and faculty support were among other themes.	Future studies need to identify the effectiveness of wellness and prevention strategies, so anesthesia programs could be more proactive in promoting wellness, effective screening in their students as they transition from student to practitioner. Authors suggest further research is necessary to confirm.

AUTHOR/YEAR/TITLE	DESIGN	SAMPLE/DATA	FINDINGS	RECOMMENDATIONS
Luck & Hendrick, (2004) The alarming trend of substance abuse in anesthesia providers	Descriptive literature review	NA	Estimates of Addiction among anesthesia providers are as high as 15%. Midazolam and Nitrous Oxide are currently the drugs of choice for addicted anesthesia providers.	
Tetzlaff, (2011). Drug diversion, chemical dependence, and anesthesiology.	Descriptive literature review		Estimates of Addiction among anesthesia dependency and the multiple factors that may lead to this.	
Tetzlaff, Collins, Brown, Leak, Pollock & Popa. (2010). A strategy to prevent substance abuse in an academic anesthesiology department.	Quality Improvement	The Cleveland Clinic's Anesthesiology Institute approached the process from the perspective of active prevention, including specific mandatory education programs for all department personnel on a recurring basis, strengthened procedures for the detection and prevention of diversion of controlled substances, enhanced skill building for detection of impairment, and implemented a multi-faceted drug testing program, including random and "for cause" urine screens, for prevention and early detection of abused anesthetic drugs and other substances of abuse.		After 18 months of preparation, a Substance Abuse Prevention Protocol was created, which has been fully implemented as of September 1, 2007.

AUTHOR/YEAR/TITLE	DESIGN	SAMPLE/DATA	FINDINGS	RECOMMENDATIONS
Warner, Schaefer, Patel, Drobeniuc, Xia, Lin & Thompson. (2015). The outbreak of hepatitis C virus infection associated with narcotics diversion by a hepatitis C virus-infected surgical technician	Observational, epidemiological case finding and report	Facility A: Total Patients N=4748 Patients tested N=4066 Facility B: Total Patients N=1222 Patients tested N=1183 HCV infected surgical technician who was suspected of narcotic drug diversion and tampering of injectable narcotic, exposing patients to his HCV infected blood.	18 confirmed cases of HCV from the surgical tech that diverted fentanyl from the anesthesia carts in the OR. Limitations include test results were not received from 674 patients.	
Wright, McGuiness, Moneyham, Schumacher, Zwerling & Stullengarger, (2012). "Opioid abuse among nurse anesthetists and anesthesiologists."	Qualitative Inquiry	NA	This article reviews the literature regarding opioid abuse and dependency among nurse anesthetist and anesthesiologists.	More studies need to be conducted on the presence of these predisposing risk factors and how it influences the development of actual substance abuse during their careers. Results could provide the foundation for a standardized approach amongst anesthesia programs.

APPENDIX B - Key Fact Sheet

DRUG DIVERSION REPORTING AND RESPONSE: A POLICY ANALYSIS

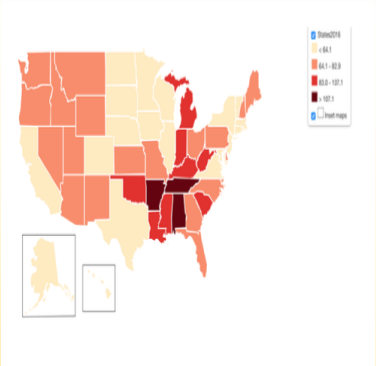
LAUREN ROBERTS, BSN, RN

Background and Significance

- Substance abuse is a disease that spans the economic and social spectrum (AANA, 2015).
- The progression of substance abuse is rapid with a very high mortality and morbidity rate (Tetzlaff, 2011).
- There are many factors that influence the development of drug diversion and abuse among providers, including genetics, personality, psychiatric disorders, stress, access to drugs and attitude (Wright, et al., 2012).
- Substance abuse and drug diversion in the workplace is an issue that should never be ignored because of its importance to both patient and provider safety.
- Policies that advocate for fair and uniform management help create a safe environment for prompt reporting, appropriate treatment, and the potential for reentry of the healthcare professional into clinical practice (AANA, 2017).
- It is imperative that healthcare facilities and anesthesia programs have policies and procedures in place related to substance abuse and drug diversion that follow current best practice guidelines (Luck & Hedrick, 2004).

Purpose

- To perform a policy analysis of the Drug Diversion Reporting and Response policy at a hospital in Mississippi.
- The policy is compared to current best practice guidelines for drug diversion polices and prevention within healthcare facilities.
- The student developed new language for the policy related to suspected or confirmed drug diversion in student registered nurse anesthetists.



Policy Analysis Findings

- **Does not have language regarding supervisors steps to take in contacting the university if a student is suspected**
- **No language regarding financial responsibility of both facility and University.**
- **Vague language on steps to follow immediately after the report of a student who is diverting drugs and/or impaired.**
- **Unclear guidelines related to the steps taken after the student has completed drug test.**
- **There is a need for uniform language/guidelines between the hospital and the university, specifically the responsibility for reporting the student to law enforcement agencies, board of nursing, etc.**

APPENDIX C – Policy Analysis

Current Best Practice Guidelines	**The Hospitals Drug Diversion/Reporting Policy**	**The University's Impaired Student Policy**	**Recommended updates/edits to the hospital's existing protocol**
Maintain clear and concise steps for employees/supervisors to follow when reporting drug diversion in student	Does not have language regarding supervisors' steps to take in contacting the university if a student is suspected	States "program director, department chair and associate dean will be notified" "the faculty member will confront the student with the behavior observed"	"if an FGH fellow, resident, medical student (include any type of learner) is suspected of diverting drugs within the scope of their training by the Committee D at FGH/Designated Nurses, the point of the program of contact administrator should be notified. (language needs to be specific for each program utilizing FGH as a clinical site). If a USM SRNA is suspected of diverting drugs within the scope of their training, the USM NAP Program administrator will be notified immediately and any further contact deemed necessary will be done so by the program administrator.

Financial Responsibility of hospital	No guidelines exist	"the faculty member will request an alcohol or drug screen. The CON will assume the cost of the alcohol or drug screen"	Add language to current policy stating the program administrator will be notified of a student suspected and/or confirmed behavior and financial obligations, such as drug testing fees, will be covered by the CONHP (College of nursing and health professionals), as stated in USM's impaired nursing student policy.
What to do with the student once a drug test is done, etc	No guidelines exist	"the student will be immediately suspended from the nursing program (not from the University)	Add Language addressing the hospitals responsibility once a student has tested positive or denied drug test. Suggested language is as follows: If an FGH resident or medical student admits substance abuse and tests positive, policy guidelines as stated in the specific program's policy will be followed. An employee will remain with the student until a program administrator or designated person arrives (will need to include a specific

			person of contact for other programs) If a USM nurse anesthesia student admits to substance, test positive or denies drug screen test, the USM NAP administrator will be notified immediately. An employee will remain with the SRNA until NAP administrator or designated person arrives. The USM NAP program administrator or representative will then allow the student to be released to a responsible adult. Recommendations also include language stating that suspected and/or confirmed impaired provider should not be allowed to operate a vehicle.
Reporting to law enforcement, licensing boards, and other government agencies	"drug diversion by an employee will be reported to all appropriate government, licensing, regulatory and law enforcement agencies"	Lacks clear guidelines	Suggested change in language: "Any follow-up and/or further reporting, such as notifying Board of Nursing or police department will be decided by the FGH Committee D/Designated nurses and The USM NAP Administrator".

APPENDIX D- SWOT Analysis

Strengths	**Weaknesses**
• No cost to the institution • Comprehensive policy analysis • Administration and anesthesia department support of the project	• Compliance from health care employees to follow policy guidelines • Bias criticism from different departments and their views on policy • Associated guilt/fear with reporting an employee
Opportunities	**Threats**
• To provide a safe and confidential process for reporting drug diversion • Fewer adverse event associated with an impaired employee	• Resistance to change by all employees • Resistance to change and/or disinterest by administration and university • Employees not reporting due to fear of a breach in confidentiality

[redacted]

To: Marjorie Everson <marjorie.geiszeverson@usm.edu>
Subject: RE: Policy analysis DNP Project

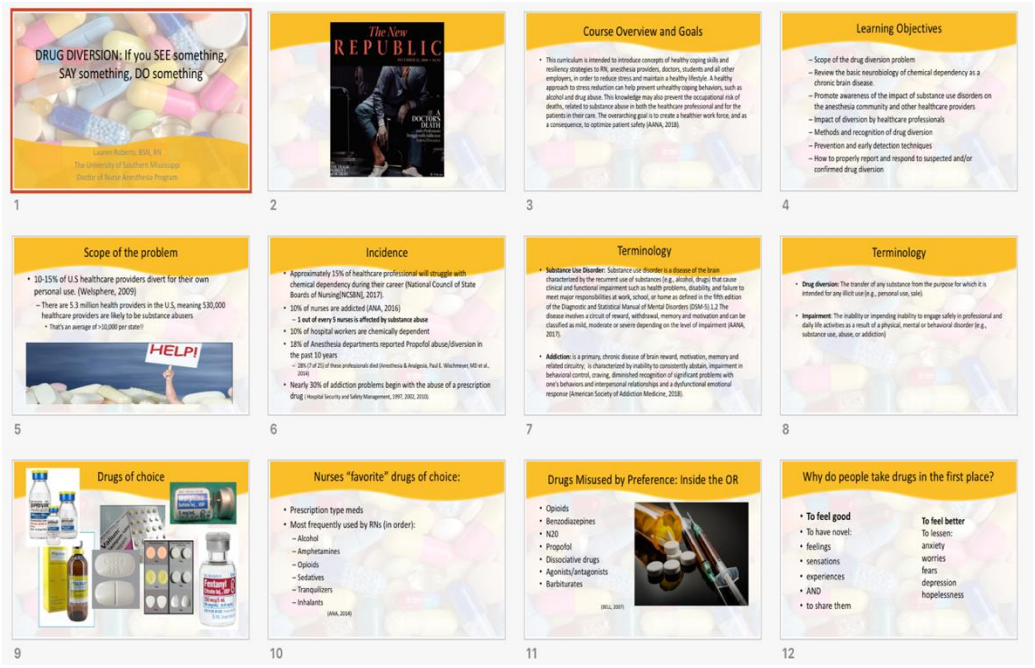
Great we can do the student orientation Monday as well and sign confidentiality form. I spoke with Deena this morning and she is good with the project. When approved at committee it will go to Nurse Practice Council December 12th for Approval. Will that give the student enough time to complete their project?

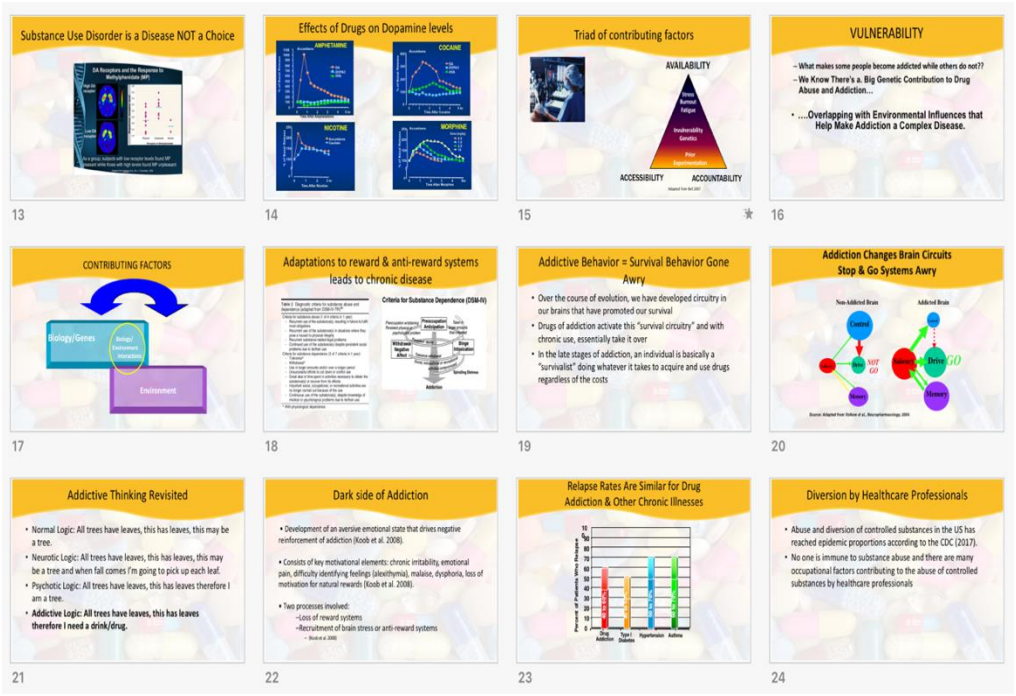
[redacted]

[redacted]

Lauren, just to inform you that your Drug Diversion Policy Analysis proposal was approved at Nurse Practice Council yesterday. When you get a few minutes please drop by Education Department (basement at FGH) and I can get the forms signed we need. I have to leave at 3:00 today but typically I am in office 8-4:30. Best of Luck with your project!

APPENDIX F– Educational Modules




Substance Use Disorder is a Disease NOT a Choice
13
Effects of Drugs on Dopamine levels
AMPHETAMINE
COCAINE
NICOTINE
MORPHINE
14
Triad of contributing factors
AVAILABILITY
ACCESSIBILITY
ACCOUNTABILITY
15
VULNERABILITY
– What makes some people become addicted while others do not??
– We Know There's a. Big Genetic Contribution to Drug Abuse and Addiction…
• ….Overlapping with Environmental Influences that Help Make Addiction a Complex Disease.
16
CONTRIBUTING FACTORS
Biology/Genes
Environment
17
Adaptations to reward & anti-reward systems leads to chronic disease
Criteria for Substance Dependence (DSM-IV)
18
Addictive Behavior = Survival Behavior Gone Awry
• Over the course of evolution, we have developed circuitry in our brains that have promoted our survival
• Drugs of addiction activate this "survival circuitry" and with chronic use, essentially take it over
• In the late stages of addiction, an individual is basically a "survivalist" doing whatever it takes to acquire and use drugs regardless of the costs
19
Addiction Changes Brain Circuits Stop & Go Systems Awry
Non-Addicted Brain
Addicted Brain
Control
Drive
Memory
20
Addictive Thinking Revisited
• Normal Logic: All trees have leaves, this has leaves, this may be a tree.
• Neurotic Logic: All trees have leaves, this has leaves, this may be a tree and when fall comes I'm going to pick up each leaf.
• Psychotic Logic: All trees have leaves, this has leaves therefore I am a tree.
• Addictive Logic: All trees have leaves, this has leaves therefore I need a drink/drug.
21
Dark side of Addiction
• Development of an aversive emotional state that drives negative reinforcement of addiction (Koob et al. 2008).
• Consists of key motivational elements: chronic irritability, emotional pain, difficulty identifying feelings (alexithymia), malaise, dysphoria, loss of motivation for natural rewards (Koob et al. 2008).
• Two processes involved:
-Loss of reward systems
-Recruitment of brain stress or anti-reward systems
22
Relapse Rates Are Similar for Drug Addiction & Other Chronic Illnesses
Drug Addiction
Type I Diabetes
Hypertension
Asthma
23
Diversion by Healthcare Professionals
• Abuse and diversion of controlled substances in the US has reached epidemic proportions according to the CDC (2017).
• No one is immune to substance abuse and there are many occupational factors contributing to the abuse of controlled substances by healthcare professionals
24
WHY SHOULD YOU REPORT??
• You can save patients from harm
• Speaking up may save your colleagues life
• It is our DUTY
• Federal regulations require you to report if you know or suspect diversion is occurring
37
Diversion and Abuse CONSEQUENCES
AANA
38
Prevention/Detection Opportunities
• If you SEE something, SAY something, DO something!!
• Report a colleague to supervisor or appropriate chain of command.
• You will remain anonymous
39
EXTRA, EXTRA… Read all about it
1in10
28,000+
40
How do we stop this???
If you SEE SAY something something
REPORT SUSPICIOUS ACTIVITY
CAUTION
0 Days
CONTROL YOUR VARIABLES
DRUG DIVERSION
41
Relapse Cycle, Recovery, Re-entry
42
Resources available
American Nurses Association (ANA):
• Substance Use Disorder Resources
• For nurses with SUD:
• For Nurses Concerned for a Colleague
43
Resources Continued
AANA Hotline:
• 1- 800-654-5167 or www.AANA.com/GettingHelp
AANA Peer Assistance Contact Information
• The AANA peer assistance homepage can be found at http://www.AANAPeerAssistance.com
• The Anesthetists In Recovery (AIR) homepage can be found at http://www.aana.com/ Resources.aspx?id=1224. AIR can be reached at (215) 635-0183 or at a.to.z@comcast.net.
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APPENDIX G– IRB Approval Letter

ORI | Office of Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI

Dec. 6, 2017

The University of Southern Mississippi Institutional Review Board, in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and university guidelines, has reviewed the following project and has determined that review by USM's IRB is not necessary.

Principal Investigator: Lauren Roberts

Title: "Drug Diversion Reporting and Response: A Policy Analysis"

Date Submitted: Nov. 27, 2017

Independent IRB review is not required in this instance, as the project does not meet federal or institutional definitions of "human subjects research.".

Sincerely,

Samuel V. Bruton

Director of the Office of Research Integrity

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